MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER **2, 2017/2018 SESSION**

TIS2151 – WEB APPLICATION DEVELOPMENT

(All sections / Groups)

17 March 2018
2:30 PM – 4:30 PM
(2 Hours)

INSTRUCTIONS TO STUDENTS

1. This Question paper consists of 4 pages with 4 Questions only.
2. Attempt **ALL FOUR** questions. All questions carry equal marks and the distribution of the marks for each question is given.
3. Please print all your answers in the answer booklet for each questions answered.

Question 1

a) Fill in the blanks in each of the following statements regarding Internet and WWW:

[1 mark]

i. The protocol for communicating over the ARPANET is known as _____.

ii. Web 2.0 embraces an architecture of _____, a design that encourages user interaction and community contributions.

iii. A _____ maintains a database of hostnames and their corresponding IP addresses, and performs the translation automatically.

iv. The two most common _____ methods are GET and POST.

b) Web-based applications are multitier applications. Name and describe the three tiers in a web-based application.

[3 marks]

c) Write an HTML5 code to create a form as follows:

- Create a field for the user to enter his/her name. Set this field to receive the focus every time the page loads.
- Create a field for the user to select his/her birth month (only from Jan to June). Enable the autocomplete feature for this field using *datalist* element.
- Create a field for the user to enter his/her IC number in the following format: ######-##-####, where # can be any numbers. Use a placeholder to let the user know the accepted format.
- Create a field where the user is allowed to choose only one option from the following 3 options for Preferred Contact Method, 1. Email 2. Phone and 3. Mail. Set the Email option to be selected by default.
- Create a button to submit the form and a button to clear the form.

[6 marks]

Continued...

Question 2

a) Fill in the blanks in each of the following statements related to CSS in HTML5.

i. If the user defines font-size in a user style sheet, the user agent style has _____ precedence over the user style.
ii. The _____ property defines the distance from the element's border to another element inside that element.
iii. The border-radius property allows you to add _____ to an element.
iv. You can add lines between columns using _____ property.

[1 mark]

b) Describe how we can set the position of elements using CSS. Explain the two types of positioning achievable using CSS property.

[2.5 marks]

c) Write the CSS rules to achieve the following:

i. Use a single copy of "bg.jpg" file as a background image, with its position maintained at the bottom left corner of the page regardless of whether the user scrolls or resizes the page.

[2 marks]

ii. Set the background-color to white and paragraph's font-color to black for when the user wants to print the HTML page.

[1.5 marks]

iii. Create a style class called "SpecialParagraph" that sets a paragraph element to take up 20% of overall window height and adds a scroll bar.

[1.5 marks]

iv. Set the background color of div element to be half-transparent red but it changes to full red when there's a mouse cursor over it.

[1.5 marks]

Continued...

Question 3

a) Fill in the blanks in each of the following statements related to JavaScript in HTML5.

i. Function parseInt converts its _____ argument to an integer.
ii. The window object's _____ method displays a pop-up window with a message.
iii. When interpreting Javascript code, the browser interprets the contents of the _____ section first.
iv. Function _____ determines if its argument is or is not a number

[1 mark]

b) Write FOUR different Javascript statements that each subtract 1 from variable x, which contains a number.

[2 marks]

c) Write a Javascript statement or a set of statements to accomplish each of the following tasks:

i. Print the integers from 5 to 30 by using a while loop and the counter variable *i*. Print only 5 integers per line.

[3 marks]

ii. Assign random integers to the variable *n* in the following range: $-1<n<11$.

[2 marks]

iii. Declare and create an array called *table* with four rows and four columns using the *new* operator. Assign the number of elements in the second row to variable *n*.

[2 marks]

Continued...

Question 4

a) List down the two types of wireframe and explain each of them.

[2 marks]

b) Design the workflow for uploading a product in an e-commerce website.

[2 marks]

c) Assume that we have a MySQLi database called Books that has 3 tables, namely Authors, AuthorISBN and Titles. Write the PHP and MySQLi scripts to do the following:

i. Select the columns AuthorID, FirstName and Lastname from the table Authors where the author's first name starts with N in ascending order by LastName.

[2 marks]

ii. Update the LastName to "Bloomwood"for the row in table Authors that has the FirstName equals to "Becky".

[2 mark]

iii. Perform a query to produce a list of authors' LastName from Authors table accompanied by the ISBNs for books written by each author (the ISBN field from AuthorISBN table). The Authors and AuthorISBN tables share a common field, AuthorID

[2 marks]

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